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Report to Congress:

National Estimates on the Number of Boarder Babies, the Cost of Their Care, and the Number of Abandoned Infants

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U.S. Department of Health and Human Services
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Prepared under Task Order Number 105-91-8123
by
James Bell Associates
2200 Clarendon Blvd., Suite 1005
Arlington, VA 22201
(703) 528-3230
FAX (703) 243-3017

CHAPTER 1

INTRODUCTION

A. Purpose of the Study

The Abandoned infants Assistance Act of 1988 (Pub.L. 100-505, as amended) was passed by Congress to assist States in addressing the problem of an increasing number of infants residing in hospitals whose parents are unable or unwilling to provide care at the time the infants are medically ready to be discharged from the hospital. The law was enacted in response to concerns that infants who were medically ready for discharge were remaining in hospitals for days, and sometimes months, while child welfare agencies endeavored to find alternative placements for these infants or provide the in-home services necessary to permit the infant to remain in the care of a biological parent(s) safely.

These infants, who the media referred to as "boarder babies," created new demands on the already scarce resources available to child welfare agencies and hospitals, particularly in poor, urban areas. Many of these infants were reported to be born to mothers who had been using crack/cocaine during their pregnancy, and some were also reported to have tested positive for the HIV virus. In addition, many of these infants were born prematurely, had low birthweights, or had medical problems that required specialized care. Not only are children who remain in the hospital beyond the point of medical need deprived of the opportunity to grow and develop in a nurturing environment, but medically unnecessary hospital care for these children also results in costs which society can ill afford.

To remedy this problem, the Abandoned Infants Assistance Act authorized funding for grants to public and nonprofit private entities for the purpose of developing, implementing, and operating programs to demonstrate methods of serving abandoned infants and young

children, especially those with acquired immune deficiency syndrome (AIDS). Demonstrations could include:

- preventing the abandonment of infants and young children;
- identifying and addressing the needs of these infants and children;
- providing assistance so they may continue to reside with their biological parents or in foster care;
- recruiting, training and retaining foster parents for them;
- operating residential care programs;
- providing respite care for families and foster families who care for them; and
- recruiting and training health and social services personnel to work with families, foster care families and residential programs that serve these children.

In addition, the law, as amended, requires that the Secretary of the Department of Health and Human Services "conduct a study for the purpose of determining --

(A) an estimate of the number of infants and young children abandoned in hospitals in the United States and the number of such infants who are infected with the human immunodeficiency virus or who have been perinatally exposed to the virus or who have been perinatally exposed to a dangerous drug;

(B) an estimate of the annual costs incurred by the Federal Government and by State and local governments in providing housing and care for such infants and young children." (P.L. 100-505, Section 102).

In response to this Congressional mandate, the Department of Health and Human Services awarded a contract in September 1991 to James Bell Associates, Inc., to conduct a study that would provide the Department of Health and Human Services with the data necessary to meet the requirements of subsection (c)(1)(A) and (B) of Section 102 of the law, and to determine the estimated number of boarder babies residing in hospitals nationwide, their characteristics, and the costs of their care.

In addition, the study examined the number and characteristics of infants who were not yet medically ready for discharge from the hospital, but who would most likely be placed by a child welfare agency in the custody of someone other than their biological parent(s). Although the care of these infants has not yet resulted in unnecessary costs to the health care system, such care requires child welfare agencies to expend considerable resources in locating and financing alternative placements. Also, if a placement is not found by the time they are medically ready to be discharged, these infants would remain in the hospital, and therefore constitute a potential boarder baby population.

B. Study Approach

A brief description of the definitionsemployed in the study and the study methodology is required before addressing the issues concerning the number of boarder babies, their costs, and their characteristics.

1. Study Definitions

The terms "boarder babies" and "abandoned infants" are sometimes used interchangeably. However, while they may have many common characteristics, these two terms represent two distinct populations for the purposes of this study, and have slightly different effects on the health care and child welfare systems. The definitions employed in this study **are as** follows:

- **Boarder Babies:** Infants, under the age of 12 months, who remain in the hospital beyond the date of medical discharge. They may eventually be released to the care of the biological parent or placed in alternative care.
- **Abandoned Infants:** Infants, under the age of 12 months, who are unlikely to leave the hospital in the custody of their biological parent when they are discharged. This includes infants who the child welfare agency believes cannot safely remain in the care of their biological parent(s) as well as infants whose

parent(s) are unwilling or unable to provide care and whose parents have had contact with the child welfare agency.'

Both the number of boarder babies and of abandoned infants must be considered when examining the resources required by the child welfare system to meet the needs of these infants.

2. Study Methodology

Prior to this study, no comprehensive effort to identify the number of boarder babies residing in hospitals in the United States had been undertaken. Limited research as well as reports by the media had identified the existence of the boarder baby phenomenon in selected cities, but the full extent of the problem was unknown. To address this information need, this study began by contacting the child welfare agencies in all 50 States and the District of Columbia and asking them to identify any counties or cities in their State which were experiencing a boarder baby problem. This information was supplemented by telephone calls to local child welfare agencies, health departments and hospitals in large urban areas as well as by a search for newspaper articles on the boarder baby crisis. As a result of these efforts, 10 1 counties were identified as possibly having experienced a boarder baby problem in 199 1.

Using the American Hospital Association Guide, all hospitals in the 101 counties that had a newborn nursery or pediatric unit were identified. This resulted in 865 hospitals being included in the study. Telephone calls were made to each of the 865 hospitals to discuss the nature and extent of the boarder baby problem they experienced. A total of 853 (98.6 percent) of the hospitals contacted agreed to discuss one or more aspects of the study.

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[1] Abandonment **in the strict sense occurs** when the biological parent(s) voluntarily choose not to parent their child. This survey includes infants who the child welfare agency has determined cannot safely remain in the care of their biological parent(s) and also that small number who are truly "abandoned."

Conversations were typically held with hospital discharge planners, who were either nurses or social workers. Discussions covered the following topics:

- the number of boarder babies residing in the hospital at the time of the telephone discussion (referred to as the census day) and a brief description of their characteristics;
- an estimate of the number of boarder babies who had resided in the hospital during the past year;
- the number and characteristics of infants currently residing in the hospital for medical reasons who were expected to be released in the custody of someone other than their biological parent(s);
- the estimated annual number of infants who leave the hospital at the time of medical discharge in the custody of someone other than their biological parent(s); and
- hospital policies and procedures relating to drug testing, HIV testing, and notification to child protective services of cases involving pre-natal drug exposure.

For those hospitals which indicated that they had one or more boarder babies residing in the hospital on the census day, a second telephone call was made to a hospital staff member in the controller or business office who was responsible for cost/reimbursement policies. One hundred twenty hospitals were contacted, of which 97 (81 percent) agreed to provide some information on cost and reimbursement mechanisms. These conversations focused on the average daily cost of care for boarder babies and the sources of reimbursement for their care.

Data from responding hospitals were tabulated to provide national estimates on the number of boarder babies, their characteristics, and the costs of their care in the hospital beyond the point of medical discharge. Adjustments to the data were made to correct for non-response. It is important to note, however, that the data provided in this report probably

represent an underestimate of the true number of boarder babies and abandoned infants for the following reasons:

- State child welfare agencies may have been unaware of or reluctant to acknowledge the existence of a boarder baby problem. Although the newspaper searches and direct contacts with local child welfare agencies and health departments partially ameliorated this problem, it is likely that some counties with small boarder baby problems were unintentionally omitted from the study.

- Hospital staff often appeared reluctant to admit to a boarder baby problem. Possible reasons for their reluctance include: (1) fear of jeopardizing Medicaid reimbursement, since Medicaid generally does not cover medically unnecessary hospital days; (2) differences in medical opinion regarding an infant's readiness for medical discharge; and (3) concerns about a negative image for hospitals with a boarder baby problem.

Despite these limitations, the findings presented in the following chapters reflect the most complete data on boarder babies available to date.

CHAPTER 2

THE ESTIMATED NUMBER OF BOARDER BABIES AND THEIR CHARACTERISTICS AND COSTS

A. The Estimated Number of Boarder Babies

Based on discussions with 851 hospitals, which provided information on the number of boarder babies residing in their hospitals on the census day in 101 counties throughout the United States, an estimated 303 boarder babies were identified as residing in 120 hospitals on any given day. The estimated total annual number of boarder babies, nationally is 9,700. Of the 797 hospitals which provided an annual estimate of the number of boarder babies, 63 percent had one or more boarder babies in the preceding twelve months.

Analysis of the geographic location of the boarder babies indicates that the majority are clustered in a few large urban areas. As indicated in Exhibit 2-1 below, 70 percent of all boarder babies reside in six major urban areas. New York City has the largest percentage of boarder babies (27 percent), and Cook County Illinois (Chicago), the District of Columbia, and Essex County New Jersey (Newark) account for 13 percent, 11 percent and 10 percent of the boarder baby population, respectively.

Exhibit 2-1

Percent Distribution of Boarder Babies by County

County/City	% of All Boarder Babies
New York City	27
Cook County (Chicago)	13
Washington, D.C.	11
Essex County, New Jersey (Newark)	10
Los Angeles County, CA	5
Wayne County, MI (Detroit)	4
SIX COUNTY TOTAL	70
All Other Counties	30
TOTAL	100

Study findings also indicate that 88 percent of all boarder babies are likely to reside in large hospitals -- that is, those which have 250 beds or more. Somewhat surprisingly, the majority of boarder babies (67 percent) reside in private hospitals. Nevertheless, public hospitals serve a disproportionate number of boarder babies. While only 15 percent of the hospitals contacted were public hospitals, one-third of all boarder babies resided in a public hospital.[1] When the distribution of boarder babies in individual hospitals is examined, it appears that the boarder baby population is concentrated in relatively few hospitals. Only 15 hospitals served 42 percent of all boarder babies identified in the one-day census.

B. Characteristics of the Boarder Babies

1. Characteristics and Medical Conditions

A summary of the demographic data that were obtained on boarder babies residing in the hospital on the census day is shown in Exhibit 2-2. With regard to race, almost 75 percent of the boarder babies were Black, 12 percent white, eight percent Hispanic, and the remaining six percent Asian, Native American, or mixed race. In comparison, the number of births by race in the nation overall is 17 percent Black, 79 percent white, and four percent belonging to other races.[2]

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[1] American Hospital Association Guide classification codes were used in establishing public or private hospital status.

[2] Statistical Abstract of the United States. 1990, U.S. Department of Commerce, Bureau of the Census. These statistics do not include a separate category for Hispanics. Births among the Hispanic population are contained within other race categories.

Exhibit 2-2

Characteristics of Boarder Babies

Race (n = 201)	**%**	**Sex (n = 200)**	**%**
White (not Hispanic)	12	Female	48
Black (not Hispanic)	74	**Male**	52
Hispanic	8	TOTAL	100
Asian	2		
Native American	2		
Other	2		
TOTAL	100		
Premature (n = 170)	**%**	**Low Birthweight (n = 151)**	**%**
Yes	**47**	**Yes**	**57**
No	**53**	**No**	**43**
TOTAL	**100**	**TOTAL**	100

Almost half of the boarder babies were born prematurely, and more than half (57 percent) of all boarder babies were low birthweight. However, the medical condition of the boarder babies varied greatly from case to case. Some were basically healthy infants who were simply awaiting completion of discharge plans. Often these healthy infants were asymptomatic, drug-exposed infants whose discharge was delayed to give child protective service workers time to conduct an investigation. Occasionally a boarder baby situation resulted when a mother was not yet medically ready to leave the hospital and no relative was available to whom the infant could be discharged.

for 36 percent of the boarder babies, respondents noted other medical conditions. These cases involved medically fragile infants suffering from a wide range of conditions such as respiratory problems, heart defects, hepatitis, congenital syphilis and other sexually

transmitted diseases, drug withdrawal symptoms, Downs Syndrome, physical deformities (e.g., cleft palates), injuries from domestic violence, and intestinal disorders. Many of these boarder babies needed equipment such as an apnea monitor or a ventilator that a parent or other custodian would need to learn to operate. Several of the boarder baby cases were infants who had returned to the hospital due to medical neglect in the home, often the result of parental inability to operate equipment or administer other medical treatments properly.

2. Drug Exposure

Discussions were held with hospital staff concerning prenatal drug exposure. These discussions encompassed both general information concerning hospital policies on drug testing and the specific drug status of the boarder babies who were in the hospital on the census day.

Before examining the percentage of boarder babies who were identified as drug-exposed, it is important to understand that hospital policies regarding drug testing varied widely, and that these variations affect the accuracy of any estimate of pre-natal drug exposure of boarder babies. As shown in Exhibit 2-3, only 3 percent of the hospitals routinely tested all mothers. Two-thirds of the hospitals tested mothers whom they considered to be at "high risk." However, further discussions with hospital staff indicated that there is considerable variation in identifying high-risk mothers. Variations were found not only in the number and types of criteria used, but in the consistency with which these criteria were applied. Presence of a risk factor did not guarantee testing -- it was simply information to

Exhibit 2-3

Hospital Drug Testing Procedures for Mothers and Infants

Mothers	% of Hospitals (N = 331)
All mothers who are considered high-risk	67
All mothers who acknowledge past drug use	19
At doctor's discretion	6
All mothers	3
None tested	2
Other	3
TOTAL	100
Infants	**% of Hospitals (N-346)**
All infants born to high-risk mothers	65
All infants of mothers who acknowledge high-risk behavior	13
All infants exhibiting withdrawal symptoms	7
All infants whose mothers **have** tested positive **to drug use**	**5**
At doctor's discretion	**5**
Other	**2**
None tested	1
TOTAL	100

be considered in deciding whether or not to test. Exhibit 2-4 provides a list of common risk factors that were considered and the frequency with which hospitals report taking that factor into consideration.

With these variations in mind, data about drug exposure were obtained for 225 of the boarder babies in the hospital on the census day. For 13 percent of these infants, drug exposure was unknown. For those cases in which drug exposure had been determined, 79 percent of the infants were identified as drug-exposed. The majority of the drug-exposed

Exhibit 24

"High Risk" Categories for Expectant Mothers as Defined by Hospital Workers[3]

Risk Factor	% of Hospitals
Crack/cocaine use	91
Any substance abuse	91
Lack of prenatal care	88
Premature delivery	50
Teenage mother	27
Previous involvement with child protective agency or other children are in CPS custody	18
Homelessness	16
Known psychiatric history	12
Unusual behavior	11
Violent behavior/history of domestic violence	9
Lack of resources	8
Lack of bonding with baby	5

infants (70 percent) were detected through drug testing of both mother and infant in each case. (See Exhibit 2-5.) About 21 percent of the drug-exposed infants were detected through testing of the infant only. Less common were infants detected by testing the mother (5 percent). In some cases the infant was considered drug-exposed, although drug testing was not conducted. Infants may have had medical complications symptomatic of drug exposure, or other factors may have been present that would indicate in utero drug exposure.

[3] Percentages do not total 100 percent due to multiple responses.

Exhibit 2-5

Drug Exposure Status of Boarder Babies

Drug Exposure	% of Infants (N = 196)
Yes	79
No	21
TOTAL	100
Method of Drug Exposure Determination	**% of Infants (N = 113)**
Mother only was tested	5
Infant only was tested	21
Both mother and infant were tested	70
Not tested, but symptoms or other reason for knowledge	4
TOTAL	100

3. Presence of the HIV Virus

Policies for HIV testing, as well as information on the HIV status of the boarder babies in the hospital on the census day, were discussed with hospital staff. Because of the large number of boarder babies with positive drug toxicologies, one would expect that hospitals would routinely attempt to obtain consent to conduct tests for HIV infection as well. However, the results show that the majority of hospitals do not have formal or even informal procedures for testing mothers and their infants for the AIDS virus. Hospital staff stated that they did not routinely administer the HIV test to drug-exposed infants because the results of an HIV test on an infant under two years of age are not conclusive. Hospital staff also noted that approximately 30 to 65 percent of infants born to HIV positive mothers are infected with AIDS and will develop the disease. However, at birth, all infants whose mothers are HIV positive carry the mother's antibodies and, therefore, will test positive for the AIDS virus.[4]

[4] Pediatric AIDS Foster Care Network Bulletin. Leake and Watts, Yonkers, New York, August/September, 1989.

Exhibit 2-6 provides information on HIV testing procedures for mothers and their infants. Almost 35 percent of the hospitals reported testing all mothers considered to be at

Exhibit 2-6

Hospital HIV Testing Procedures for Mothers and Infants

Mothers	**% of Hospitals (N = 312)**
All mothers who are considered high-risk	**35**
All mothers who acknowledge high-risk behavior	25
At doctor's discretion, with mother's knowledge	23
All mothers	7
Mothers who request to be tested	3
Other	7
TOTAL	100
Infants	**% of Hospitals (N = 2801**
At doctor's discretion	29
All infants born to high-risk mothers	24
All infants whose mothers have tested positive	17
All infants of mothers who acknowledge high risk behavior	7
All infants	**1**
Other	12
None **tested**	9
TOTAL	100

high risk of HIV infection (e.g., IV drug users; partners of IV drug users); 25 percent of the hospitals reported that they test only mothers who acknowledge high-risk behavior. Only seven percent of the hospitals reported testing all new mothers.

Infants were tested for HIV less often than their mothers. Nine percent of the hospitals reported not testing any infants. Twelve percent reported testing under special circumstances, such as a request from the child welfare agency. Twenty-four percent of the hospitals reported testing all infants born to mothers at high risk of infection, and 17 percent of the hospitals reported testing all infants whose mothers have tested positive. Even when testing occurred, tests results were confidential and often known only to the physician and the mother. As a result, hospital social workers and nurse discharge planners did not know if a specific infant had been tested or if the results were positive.

As shown in Exhibit 2-7, only half of the boarder babies who were residing in the hospital on the census day had a known HIV status. An additional 21 percent were known not to have been tested. Out of 56 infants who were tested and whose results were known, 23 percent were HIV positive, representing seven percent of all identified boarder babies. Most **significantly, while 8 percent of all drug-exposed infants were HIV positive,** 68 percent of **all drug-exposed infants were either not tested or had an unknown HIV status.**

Exhibit 2-7

HIV Status of Boarder Babies

HIV Status	% of Infants (N = 186)
Infant is HIV(+)	7
Infant is HIV (-)	23
Infant was not tested	21
Status not yet known/or respondent did not know whether infant was tested	49
TOTAL	100

The limited amount of HIV testing being conducted has serious implications regarding the boarder baby and abandoned infant populations. These are infants for whom the hospital and child welfare agency are seeking alternative care placements. Foster families and other

alternative caregivers need to know the HIV status of any child in their home so that they can make appropriate decisions regarding medical care, access to services, and other issues, Hospitals in some cities reported that results of **an HIV** test must be known for the infant to be taken into custody by the State **for foster care. However,** in States that did not have this requirement, there were a few hospitals in which HIV testing was not usually done on infants and medical records of the mother were considered confidential. This combination of circumstances indicates that it is possible for an infant with an HIV positive mother to be placed into foster care without the knowledge of either the agency or the foster parents.

C. Discharge Plans for Boarder Babies

Discharge plans for boarder babies were also discussed with hospital staff. Although remaining in care beyond medical discharge, 30 percent of the boarder babies were expected to leave the hospital in the custody of their biological parent(s) eventually. For the remainder of the boarder babies, some form of alternative care was being sought.

The reasons for needing alternative care were explored with hospital staff. They indicated that, for only one-third of these cases, the biological parent(s) was unwilling to care for the child (Exhibit **2-8).** For the majority of infants, alternative care was being sought as a result of a determination by the child welfare agency that it was not safe for them to remain in the custody **of their biological parent(s).**

Exhibit 2-8

Reason for Alternative Care Placement of Boarder Baby

Reason	% of Infants (N = 143)
Child welfare agency did not believe it was safe to allow parent(s) to care for infant	53
Parent(s) not willing to care for infant	33
Parent(s) willing but presently unable to care for infant	11
Other	4
TOTAL	100

The majority of boarder babies for whom alternative placement was sought were placed in a family foster home (Exhibit 2-9). Two types of placements with other relatives were also identified. In some instances, custody of the boarder baby was given to a relative who resided in the same household as the biological parent(s). More frequently, boarder babies were placed with relatives who lived apart from the biological parent(s). Only five percent of the boarder babies were expected to be placed in a group home or congregate care facility.

Exhibit 2-9

Type of Placement Being Sought for Boarder Babies

Type of Placement	% of infants (N = 139)
Family foster home	55
Relative home with no biological parent in the household	13
Relative home with biological parent(s) in the household	6
Specialized family foster home (e.g., medical conditions)	11
Group home or other congregate care facility	5
Adoption	4
Other	6
TOTAL	100

D. Length of Stay in the Hospital

The length of time boarder babies remain in the hospital can be examined as two separate time periods, the length of stay prior to becoming medically ready for discharge and the period of time in which they are medically ready to leave the hospital. The median length of time boarder babies resided in the hospital prior to medical discharge was seven days.

Developing an estimate of the number of days boarder babies remained in the hospital beyond medical discharge was not possible within the constraints of this study. Since information was provided only about boarder babies who were still in the hospital on the census day, the eventual length of stay for these cases cannot be determined. Nevertheless, information was obtained on the boarder babies' length of stay beyond medical discharge up until the census day. The median length of stay identified was five days. The distribution of boarder babies by length of stay beyond medical discharge as of the census day is shown in Exhibit 2-10 below. Over one-third of the boarder babies had resided in the hospital for less than three days beyond medical discharge. Only five percent had been in the hospital for more than 100 days beyond medical discharge.

Exhibit 2-10

Length of Stay Beyond Medical Discharge to Date of Boarder Babies

Length of Stay	% of Cases (n = 189)
Less than Three Days	33
Three to Five Days	19
Six to Ten Days	13
Eleven to Twenty Days	12
Twenty-One to Fifty Days	11
Fifty to One Hundred Days	8
More than One Hundred Days	5
TOTAL	100

The reasons infants remained in the hospital beyond medical discharge were also examined. As shown in Exhibit 2-l 1, nearly half of the infants remained in the hospital beyond medical discharge because an appropriate placement had not been located. In 29 percent of the cases an investigation by the child welfare agency was still pending.

Exhibit 2-11

Reason Infant is in Hospital Beyond Medical Necessity

Reason	% of Cases (n = 208)
Unable to locate appropriate placement	47
Child Protective Service investigation is not yet complete	29
Waiting until biological parent(s) able to provide care	12
Trying to locate mother to initiate investigation	3
Court delays in determining biological parent(s) ability to parent	3
Waiting for particular foster home to be available	2
Waiting for adoption process to be completed	2
Other	2
TOTAL	100

Length of stay beyond medical discharge for boarder babies with selected characteristics was also examined. Factors contributing to longer lengths of stay were as follows:

- Boarder babies who tested positive for the HIV virus had a median length of **stay** beyond medical discharge of 19 days.
- Boarder babies waiting for a foster family home placement had a median length of stay beyond medical discharge of 11 days.
- Medically fragile boarder babies requiring specialized foster care had a median length of stay beyond medical discharge of 61 days.

E. Cost of Care

Estimates of the costs of care of boarder babies are extremely difficult to develop. Many hospitals are reluctant to provide data on their actual costs, and those which are willing to provide data often use different and incompatible methods for categorizing costs. Nevertheless, data were obtained from 81 percent of the hospitals which had one or more babies on the census day concerning their per diem charges for boarder babies,

Costs provided by individual hospitals varied along several dimensions. These include the following:

- Hospital Unit Housing **a Boarder Baby:** Charges vary depending upon whether boarder babies are housed in the nursery, neo-natal intensive care unit (NICU), or pediatric unit. Two-thirds of the hospitals could identify the unit in which boarder babies were typically housed and provided daily rates for care in that unit. For hospitals which were uncertain about the unit typically housing boarder babies, an assumption was made that the boarder babies would be housed in the lowest cost unit available in that hospital. Rates for that unit, typically the nursery, were obtained from these hospitals.

- **Level of Care:** Charges also vary depending on the level of care provided in a unit. Many hospitals noted that boarder babies were typically housed in a "special care" or "step-up" unit within the nursery rather than the well-baby unit where the mother would be caring for and feeding the infant. Most hospitals which housed infants in the NICU provided the lowest level of care available in that unit (i.e., a step-down unit). For hospitals which did not specify the level of care provided, assumptions were made that the boarder babies were either in a "step-up" unit in the nursery or the "step-down" unit of the NICU.

- **Type of Cost Estimate:** Three types of daily rates were provided by the hospitals. The majority (74) provided a base rate of direct and indirect costs **of** minimum care without ancillary charges. Fifteen hospitals provided inclusive **rates that** covered ancillary charges, and eight hospitals provided per diem rates based on minimum direct charges only. Hospitals providing per diem rates indicated that indirect charges were approximately equal to the direct charges. Therefore, the per diem rates were doubled to approximate the base rates provided by the hospitals. It was not possible, however, to estimate ancillary costs. Thus, the rates used represent an underestimate of the total costs involved in caring for boarder babies.

Cost estimates were derived by weighting the rates provided by individual hospitals in proportion to the number of boarder babies residing in that facility.

Exhibit 2-I 2 provides a breakdown of the range of rates in each of six counties with the most boarder babies and all other counties as well as the average daily rate per child. As evidenced in this Exhibit, individual hospital rates ranged from $140 to $2,400 per day.

Exhibit 2-I 2

Estimated Hospital Cost of Boarder Babies for Selected Counties'

County/City	Range of Daily Costs for Hospitals ($)	Estimated Daily Hospital Cost Par Boarder Baby[6]($)
Los Angeles County, CA	386 - 826	536
Washington, D.C.	180 - 2,400	843 [7]
Cook County, IL	297 - 950	538
Wayne County, MI	390 - 435	416
Essex County, NJ	140 - 833	263
New York City, NY	181 - 800	296
All Other Counties	160 - 1,600	500
TOTAL AVERAGE	203 - 1,223	460

Rates were highest in the District of Columbia, Cook County and Los Angeles. The average daily rate for all boarder babies was $460.

Based on the formulas presented above, the average cost per boarder baby based on the median length of **stay past medical discharge** of five days is $2,300. When the mean length of stay past medical discharge (22 days) is used in the calculation, the average cost

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[5] The costs are adjusted for non-responding hospitals.

[6] Estimates are based on weighting hospital rates in proportion to the number of boarder babies in that facility on the census day.

[7] Washington, D.C. had one outlier hospital that increases the average significantly. If this hospital is excluded, the average is $351.

per boarder baby is $10,120. Thus, the estimated annual cost for 9,700 boarder babies is $22.3 million using the median and $98.2 million using the mean length of stay past medical discharge. It is important to note that this does not include the cost of any medically necessary days spent in the hospital. Furthermore, this figure is an underestimate of even the cost of medically unnecessary days due to the lack of data on ancillary costs and the fact that the length of stay past medical discharge could only be established up until the date of data collection. Many boarder babies were expected to stay for a period of time after the census day.

For boarder babies residing in the 15 hospitals able to provide inclusive rates (e.g., including ancillary costs), the average daily rate was $586. When this inclusive rate is used, the average per boarder baby cost is $2,930 and the annual cost for 9,700 boarder babies is $28.4 million (using the median of five days of stay past medical discharge). The average cost per boarder baby is $12,892 and the annual cost is $125 million when the mean of 22 days stay past medical discharge is used.

Thus, cost estimates range from a minimum of $22.3 million based on actual hospital rates and the median length of stay to a maximum of $125 million based on inclusive rates and the mean length of stay past medical discharge.

F. Payment for Boarder Baby Days

Payment sources cited include Medicaid, child welfare agencies, adoption agencies, adoptive parents, or other alternative sources. However, the majority of hospitals indicated they have no immediate resolution of the boarder baby problem from a fiscal perspective.

Exhibit 2-13 provides information on payment sources for boarder baby costs. As shown, the largest number of hospitals cited no source of payment and addressed these costs

as uncompensated care. Six hospitals mentioned alternative approaches to how they were covering these costs.

Exhibit 2-13

Summary of Sources of Payment for Boarder Baby Days

Source of Payment	# of Hospitals Reporting
Some Medicaid coverage[8]	34
Social service or adoption agencies[9]	31
Alternative approaches	6
Uncompensated care[10]	48

Medicaid is a State-administered program jointly funded by the Federal and State governments. Under the Medicaid Program, States can choose which medical services they will reimburse. Thus, we found differences among States and among counties within States in making Medicaid payments for days spent beyond medical discharge. Regardless of the differences in Medicaid reimbursement policies, the majority of the hospitals reported that Medicaid does not pay for Administratively Necessary Days (ANDs), i.e., days the infants stays in the hospital for non-medical reasons, though this does not appear to be universally true. The cost of these days simply results in "bad debt" or "uncompensated care." However, approximately one-third of the reporting hospitals said that Medicaid would pay for some of the cost of boarder baby days under limited circumstances. These limitations can include one or more of the following conditions:

- Payments at a lower per diem rate designated as an Alternative Level of Care (ALC) rate, Intermediate Care Facility (ICF) rate, or a rate for Administratively Necessary Days (ANDs).

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8 Includes hospitals reimbursed for a limited number of boarder baby days.

9 Includes public child welfare agencies, private adoption agencies, and some cases where adoptive parents are payers.

10 Includes some hospitals that may receive limited payment from Medicaid or social service agencies.

- Payment for Excessive Costs: For example, one hospital indicated Medicaid will only pay costs of care of a boarder baby if the charges are above $90,000. Another hospital reported that Medicaid will pay a per diem rate for "high risk" babies who had a length of stay of more than 140 days or total charges that exceeded $195,000.

- Medicaid reimbursement could be obtained at the hospital's per diem rate if the baby is eventually going home with the mother. For example, a justification for full payment of charges by Medicaid is if the mother is in a drug treatment program and, after treatment, the baby will live with her.

New York City is almost a singular case where boarder baby days are paid for by a combination of Medicaid and other public sector funds. **For the public hospitals, Medicaid will** pay for 10 days after an infant is medically ready for discharge. After 10 days, the cost burden is borne by the New York City tax levy, a form of city subsidy to the Health and Hospital Corporation in payment for services rendered to indigents and uninsured, prisoners, uniformed services and other health programs administered by New York City. For private hospitals in New York City, only **the 10 days are** paid by Medicaid and, thereafter, bad debts are incurred by the hospital.

1. Other Payers

Thirty-one hospitals reported that a social service agency would pay some (at a per diem rate) or all charges for the boarder baby, again depending on certain circumstances. Most of these hospitals said that **if the child welfare agency has custody of the baby, they** would **pay for days of stay after medical discharge while** the agency was seeking a **placement. Several hospitals reported that the child welfare agency in** the past had made payment for medically unnecessary days, but the agency "had run out of money" and so they no longer make **such payments.**

2. Alternative Approaches

Six hospitals reported making special arrangements to help cope with the problem of boarder baby costs by focusing on alternatives for placement. One hospital has an affiliated long-term care facility nearby, with a separate children's unit in this facility to house boarder babies. Another hospital recently completed renovation of an old hospital building that is now used to house infants with AIDS and infants born addicted to cocaine. A third hospital had a State grant to assist in the opening of a 24-unit apartment building where cocaine-addicted mothers with up to two young children can live for six months. Still another hospital has a separate foundation that seeks funding from the local community and through other types of grants and charities. Hospitals in some States (e.g., Arizona and Massachusetts) reported receiving monies from State-funded medical programs for low-income families.

CHAPTER 3

THE ESTIMATED NUMBER OF ABANDONED INFANTS AND THEIR CHARACTERISTICS

In addition to gathering data on the number and characteristics of boarder babies, discussions were also held with child welfare agency and hospital staff regarding other infants who were not expected to be discharged into the custody of their biological parent(s). This included cases where the parent(s) did not wish to provide care for the infant or was unable to do so and there was some child welfare agency involvement. It also includes cases in which the child welfare agency determined that the parent(s) could not care for the infant safely.

When State child welfare agencies were asked to identify counties with boarder baby or abandoned infant problems, 97 counties that were not identified as having a boarder baby problem were identified as having an abandoned infant problem. Limited time and resources precluded contacts with hospitals in these counties; however, discussions about abandoned infants were **held with all hospitals contacted about boarder baby problems.** Thus, the estimates on the number of abandoned infants documented in this report do not represent a nationwide estimate; rather, they provide supplementary information from counties experiencing boarder baby problems.

Abandoned infants residing in hospitals which had boarder babies were included in this study for several reasons. First, some of these infants may, in time, become boarder babies. Although these infants still required medical care on the day of our telephone contact with the hospital, these infants may ultimately remain in the hospital longer than medically necessary while appropriate placements are sought. Second, even those infants who are placed

promptly will still require the services of the child welfare agency. Therefore, their potential burden to the child welfare system cannot be underestimated.

Finally, the determination that an infant can be medically discharged is not always a clear cut decision. For example, some physicians include the availability of a home to go to or a placement alternative as a criterion for readiness for discharge. Also, lack of reimbursement for medically unnecessary hospital days may lead some hospitals to fail to identify infants as medically ready for discharge. Therefore, it is possible that some of the infants identified by hospitals as abandoned were, in fact, boarder babies.

A. The Estimated Number of Abandoned Infants

All hospital staff were asked whether or not they had any infants, under the age 12 months, who had not yet been medically discharged, but who were unlikely to leave the hospital in the custody of their biological parent(s). Ninety-eight percent of the hospitals contacted provided information on this topic. Adjustments for non-responding hospitals were made to the findings.

An estimated 315 abandoned infants were identified as being in the hospital on the census day. The annual estimate provided by these hospitals was 11,900 abandoned infants. Exhibit 3-l provides the percentage distribution of abandoned infants in counties with the most severe boarder baby problem. Forty-nine percent of all abandoned infants identified resided in these six counties. This is a considerably lower percentage than that of the boarder babies (70 percent), suggesting that the abandoned infant problem is somewhat more diffuse and affects a larger number of counties.

Exhibit 3-1

Percent Distribution of Abandoned Infants by County

County/City	% of All Abandoned Infants
New York City	22
Cook County (Chicago)	6
Washington, D.C.	3
Essex County, New Jersey (Newark)	2
Los Angeles County, CA	12
Wayne County, MI (Detroit)	4
SIX COUNTY TOTAL	49
All Other Counties	51
TOTAL	100

B. Characteristics of the Abandoned Infants

1. Demographic Characteristics

Information was provided on 222 (71 percent) of the abandoned infants residing in the hospital on the census day. Exhibit 3-2 presents the characteristics of these infants. Although the majority of both abandoned infants and boarder babies were Black, abandoned infants were more likely than boarder babies to be white (20 percent vs. 12 percent). Over three-quarters of the abandoned infants had low birthweights and 70 percent were born prematurely.

Many of the infants, including those exposed to drugs, were expected to develop normally, with perhaps some developmental delays due to low birthweight or prematurity. However, other infants were described as being medically fragile, some with no hope of long-term survival. Fifty-seven percent of the abandoned infants had medical conditions other than drug exposure, HIV status, prematurity and low birthweight. These conditions included: respiratory problems, often requiring the use of an apnea monitor; fetal alcohol syndrome; feeding disorders; syphilis; mental retardation; genetic disorders; and cleft palates or other

birth anomalies. While some of the medical conditions described were due to genetic disorders, prenatal drug exposure was generally believed to be responsible for low birthweight, prematurity, and some related medical conditions.

Exhibit 3-2

Characteristics of Abandoned Infants

Race	% of Infants (N = 215)	Sex	% of Infants (N = 214)
White (not Hispanic)	20	Female	51
Black (not Hispanic)	67	Male	49
Hispanic	9	TOTAL	100
Asian	1		
Native American	1		
Other	3		
TOTAL	100		
Premature	**% of Infants (N = 165)**	**Low Birthweight**	**% of Infants (N = 183)**
Yes	70	Yes	76
No	30	No	24
TOTAL	100	TOTAL	100

2. Drug Exposure

Pre-natal drug exposure was unknown for 13 percent of the abandoned infants. Of those whose status could be determined, 78 percent were considered to be drug-exposed. This is quite similar to the percentage of boarder babies who were drug-exposed (79 percent).

3. HIV Status

Two-thirds of the abandoned infants were either not tested to determine their HIV status or their status was unknown to the discharge planner. (See Exhibit 3-3.) Almost one-third of the infants were classified as HIV(-) either through testing of the infant or a known negative status of the mother. Only four percent of the abandoned infants were identified as

HIV(+). **If only drug-exposed abandoned infants are examined, the percentage of abandoned infants that are HIV(+) increases to six percent.**

Exhibit 3-3

HIV Status of Abandoned Infants

HIV Status	% of infants (N = 191)
Infant is HIV(+)	4
Infant is HIV (-)	30
Infant was not tested	22
Status not yet known/or respondent did not know whether infant was tested	45
TOTAL	100

C. Length of Hospital Stay

Exhibit 3-4 provides information on the number of days that abandoned infants **had been residing** in the hospital. Fifty-nine percent of the abandoned infants had **been** in the hospital for 20 days or less. Six percent of the infants had been in the hospital for more **than 100 days.**

Exhibit **3-4**

Length **of Stay as of Survey Date for Abandoned Infants**

Length of Stay	Percentage of Cases (n = 169)
Less than Three Days	**10**
Three to **Five Days**	**17**
Six to Ten Days	17
Eleven to **Twenty Days**	14
Twenty-One **to** Fifty **Days**	25
Fifty to One Hundred Days	10
More than One Hundred Days	6
TOTAL	100

The median length of stay for abandoned infants was 13 days as of the census day. This is almost twice as long as the median number of medically necessary days identified for boarder babies (seven days), but very similar to the total number of medically necessary and other days spent in care by boarder babies (12 days). The reason for this difference is not readily apparent. A somewhat larger percentage of abandoned infants had low birthweights (77 percent vs. 57 percent) and this might account for longer lengths of medically necessary stays, However, determining when an infant is medically ready for discharge is somewhat subjective and may vary among medical staff, discharge planners and others, resulting in an arbitrary distinction between the boarder babies and abandoned infants.

D. Discharge Plans **for Abandoned Infants**

The reasons infants were not expected to leave the hospital in the care of their parents are presented in Exhibit 3-5. Only 21 percent of the parents were unwilling to care for their infant. In 59 percent of the cases, alternative living arrangements were being sought as a result of the child welfare agency's determination that it was unsafe to allow the parent(s) to care for the infant.

Exhibit 3-5

Reason for Alternative Care Placement of Abandoned Infant

Reason	% of infants (N = 219)
Child welfare agency did not believe it was safe to allow parent(s) to care for infant	59
Parent(s) not willing to cafe for infant	21
Parent(s) willing but presently unable to care for infant	12
Other	8
TOTAL	100

Exhibit 3-6 presents information on the type of alternative living arrangements sought for the abandoned infants. Placement in a foster family home was being sought for 54 percent of the infants. Placement with a relative was sought in 19 percent of the cases. In seven percent of these cases, the biological parent resided in the same home as the relative who would assume custody of the child. The number of infants for whom adoption was sought was relatively small -- six percent. Only one percent of the infants were expected to require placement in a group home or congregate care facility.

Exhibit 3-6

Type of Placement Being Sought for Abandoned Infant

Type of Placement	% of Infants (N = 219)
Family foster home	54
Relative home with no biological parent in the household	11
Undetermined	9
Relative home with biological parent(s) in the household	7
Specialized family foster home (e.g., medical conditions)	6
Group home or other congregate care facility	1
Adoption	6
Other	6
TOTAL	100

CHAPTER 4

SUMMARY AND CONCLUSIONS

This study found that there were nearly 10,000 boarder babies residing in 573[11] hospitals throughout 101 counties in the United States in 1991. Although the study methodology did not allow us to determine the full length of stay for a boarder baby (i.e., the stay until actual discharge from the hospital), data on boarder babies who were in a hospital on the day of contact with that hospital had a median length of stay of seven days prior to medical discharge and a median length of stay of five days after medical discharge. One-third of the infants remained in the hospital for less than three days after medical discharge, and another 30 percent remained in the hospital for three to 10 days after discharge.

The estimated cost of providing hospital care beyond the point of medical discharge varies based on assumptions made about the average daily rate of hospital care and the number of days of care beyond medical discharge that is provided. Estimates of the costs per day of hospital care range from $460 (based on actual daily rates charged by responding hospitals) to $586 (based on daily rates that include ancillary charges such as laboratory tests or **the use of** apnea monitors). **The median length of stay beyond medical discharge for boarder babies was five days, but the mean length of stay was 22 days. Thus, the most conservative estimate of cost per boarder baby (based on reported daily rates and a median length of stay of five days) is $2,300. The estimated cost per boarder baby using an inclusive rate of $586 and the mean of 22 days beyond medical discharge is $12,892. Thus, annual cost is estimated to range from a minimum of $22.3 million (using five days and actual**

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[11] 292 of 865 hospitals reported not having any boarder babies in the last year. Sixty-eight of the 573 cited hospitals did not provide data, but the number of boarder babies per year in these hospitals is estimated as shown in Chapter 2.

hospital rates) to a maximum of $125 million (using 22 days and only hospitals providing inclusive rates).

In addition to estimating the number of boarder babies, this study also explored the number of abandoned infants -- those who will not be leaving the hospital in the custody of their birth parent(s). Data on abandoned infants are limited to those counties which also experienced a boarder baby problem, although preliminary contacts with State child welfare agencies indicated that there were an additional 97 counties which may be experiencing a problem with abandoned infants that were not having a boarder baby problem. In the 865 hospitals studied, nearly 12,000 abandoned infants were identified. Although these infants are not the financial burden to the health care system that boarder babies are, they require the services of the child welfare agency. Thus, their importance in understanding needed child welfare resources cannot be overlooked.

Although there are some differences in the characteristics of the boarder baby and abandoned infant populations, they are generally quite similar:

- The majority of boarder babies and abandoned infants are Black (75 percent and 67 percent respectively);
- Over three-fourths of the boarder babies and abandoned infants who were tested were found to be drug-exposed (79 percent and 78 percent);
- Almost half of the boarder babies were born prematurely (47 percent) and three-fourths of the abandoned infants were born prematurely (77 percent);
- Over half of the boarder babies were low birthweight (57 percent) and three-fourths of the abandoned infants were low birthweight (77 percent); and
- Only half of the boarder babies and 42 percent of abandoned infants who were identified as drug-exposed were known to have been tested for HIV virus by the hospital discharge planners. Eight percent of the drug-exposed boarder babies and six percent of the drug-exposed abandoned infants tested positive for the virus.

Slightly over 60 percent of the boarder babies were not expected to leave the hospital with their custodial parent(s). Fifty-five percent of all boarder babies were expected to be placed in a family foster home. Only 2.5 percent are expected to go directly into an adoptive home placement. None of the abandoned infants was expected to leave the hospital in the care of their biological parent(s). Fifty-four percent of the abandoned infants were expected to be placed in foster family care, and six percent were expected to go into an adoptive placement.

The reasons for alternative placements are similar for both boarder babies and abandoned infants. Alternative placements were sought as a result of a determination by child protective services that it would be unsafe to allow the infant to leave the hospital in the care of his/her parents. These placements were sought for 53 percent of the boarder babies and 59 percent of the abandoned infants.

The issues pertaining to boarder babies and abandoned infants cut across the domain of both the health care and child welfare systems. From the perspective of the hospitals and the Federal and State agencies that finance hospital care, the distinction between a boarder baby and an abandoned infant is critical. Infants who stay beyond the point of medical discharge use expensive hospital resources unnecessarily, but infants who have an alternative living arrangement available at the time of medical discharge do not use these resources.

In contrast, from the perspective of the child welfare system there is little difference between boarder babies and abandoned infants. Resources are still needed to investigate parental ability to provide for a child, to identify additional resources that may be rewired to permit a child to remain with a biological parent, and to identify and pay for alternative placements for those who cannot safely return home.

The distinction between boarder babies and abandoned infants may be due to a variety of other factors including: variations in medical opinion as to when an infant is ready to be discharged; the amount of time available to child protective services to investigate a case and, where necessary, locate an alternative placement prior to medical discharge; the number of child abuse and neglect allegations to be investigated per worker; and the availability of foster homes and congregate facilities which can provide care for infants who may be medically fragile.

For both the child welfare and health care systems, the medical conditions of the child will affect the resources expended. For the health care system, the costs for infants requiring different levels and types of care are obvious. Moreover, these costs will be incurred for all infants with a specific medical condition regardless of whether or not they remain in the hospital beyond medical discharge or leave the hospital at the time of medical discharge in either the custody of their parents or the child welfare agency. It is important to note that this study has not identified the total number of medically fragile infants in hospitals nor the costs of care relating to their medical conditions. However, among the boarder babies identified and described by hospitals, 36 percent had medical conditions other than drug exposure, low birthweight, prematurity, or HIV infection. Fifty-seven percent of abandoned infants had other medical conditions. These conditions frequently included respiratory problems usually due to prematurity. Other typical medical conditions included physical deformities, heart defects, sexually transmitted diseases, and Downs Syndrome.

The medical condition of the infants also has serious implications for the child welfare agency. Infants with more serious medical problems may be less likely to leave the hospital in the care of their biological parent(s) if there are questions about parental ability to provide adequate care. The severity of an infant's medical problems will also affect the choice Of an

alternative Placement setting as well as the speed with which an appropriate placement can be identified.

Two other issues that may relate to the infant's health status also pose problems for the health care and child welfare systems -- fetal drug exposure and HIV status. Although both of these conditions may be associated with immediate medical problems for the infants, this is not universally true. Thus, there is no immediate medical need to identify definitively the existence of drug exposure or HIV infection in the absence of other medical problems. As a result, hospitals face dilemmas in establishing policies regarding testing, seeking consent for testing, and in maintaining confidentiality of the test findings.

It is important to note that this study did not attempt to identify the incidence of fetal drug exposure or the incidence of infants who test positive for the HIV virus. Questions concerning drug exposure and HIV testing were asked only for infants identified as either boarder babies or abandoned infants. To the extent that drug-exposed or HIV positive infants were released from the hospital at the time of medical discharge in the custody of a biological parent(s), they were not included in this study. However, the information obtained from hospitals regarding testing policies for drug exposure and the presence of the HIV virus suggests that any effort to develop estimates of the number of drug exposed or HIV positive infants would be seriously flawed. The lack of consistent policies regarding testing for fetal drug exposure and the presence of the HIV virus would make it impossible to obtain unbiased estimates of the nature and extent of these problems. Not only were differences in policies among hospitals identified, but in many instances existing policies are likely to lead to flawed findings with the population served by a single hospital. To the extent that testing is either entirely discretionary, or existing policies differentiate between clinic and private Paying

patients, Of existing criteria such as residence in a zip code known for drug infestation are used to determine who is tested, the identified incidence of fetal drug exposure will be biased.

This problem is further complicated by the limitations of drug testing procedures. For most hospitals, drug testing was based exclusively on urinalysis tests performed on the mother and/or the infant, despite the known limitations of urinalysis testing (i.e., it may not capture low level drug use or any drug use that occurred more than 72 hours prior to testing). Thus, existing drug testing procedures are likely to underestimate the extent of fetal drug exposure.

The question of HIV testing policies appears to be even more complex. Few hospitals routinely test all mothers (7 percent), even all mothers exhibiting high risk behaviors (35 percent). An even smaller number routinely test all infants (less than 1 percent), even all infants born to high risk mothers (24 percent). Furthermore, 93 percent of the hospitals reported needing a woman's consent in order to test her, and 88 percent required the mothers' consent to test the infant. Hospitals noted that testing was limited because of the inconclusive nature of the test on a child under the age of two as well as the need to obtain consent for testing. It is also important to note that, even if testing was undertaken, the existence of the test or its findings were often unknown to discharge planners.

To some extent the lack of clear cut policies on drug and HIV testing are understandable. Although fetal drug exposure is often associated with a range of medical and developmental problems, hospital care focuses on the treatment of identified medical problems regardless of whether or not their existence is related to drug exposure. Similarly, data have shown that many infants who initially test positive for the HIV virus, sero-convert before the age of two. Thus, there is no treatment protocol for asymptomatic infants. While knowledge of fetal drug exposure or a positive HIV test may not affect short-term medical treatment of

the infant, including protection to avoid subsequent infection of others; both of these factors have long-term implications for the health care system, and both short- and long-term implications for child welfare agencies. Therefore, the need for consistent drug and HIV screening procedures cannot be ignored.

Despite the lack of consistent information on fetal drug exposure, detection of fetal drug exposure has implications for the child welfare system. Child welfare agencies are divided in their response to information regarding fetal drug exposure, In some jurisdictions, evidence of fetal drug exposure in and of itself constitutes child maltreatment and must be reported by hospital staff, while in other jurisdictions any evidence of fetal drug exposure must be accompanied by other information suggesting that the parent is unable to care for the child adequately. In addition, agency responses to the potential risk to a child may vary from providing home-based services to a family, allowing the child to remain in the custody of the parent but continuing to monitor the child's well-being, or removing the child from a parent's custody and making an alternative placement.

In addition to differences in State laws and policies regarding the existence of fetal drug exposure as evidence of child maltreatment, other factors may affect the outcomes for infants and their parents. In urban areas experiencing an overload of new child abuse and neglect allegations, screening criteria may be adjusted to match available resources. Thus, cases that may have at least been investigated by child protective services in some jurisdictions will not even be examined in others. Of those cases that are investigated, the availability of home-based services as well as the availability of alternative placement settings will affect the outcomes for children and their families as well as the short- and long-term public resources required to address these problems.

The question of the lack of testing for the HIV virus poses other problems for child welfare agencies. Although a positive test for the HIV virus may not be conclusive, there is clearly a need for medical follow-up for these children. If there is ongoing involvement with the family by child protective services, medical follow-up can be encouraged and monitored, Most importantly, child protective services has an obligation to inform adequately foster parents and adoptive parents of the medical status of a child placed in their care. To the extent that a child has tested positive for the HIV virus, there are some precautions (e.g., use of plastic gloves when changing diapers) that should be taken. If testing does not occur, or if test results are not shared with discharge planners, the child welfare agency cannot adequately inform foster and adoptive parents of the need to use simple precautions to prevent the possible spread of the virus.

This study has noted that the incidence of boarder babies, abandoned infants, drug-exposed infants, infants testing positive for the HIV virus, and medically fragile infants have serious but different types of implications for the health care and child welfare service delivery systems. It is equally important to note that these implications are inter-related. Although abandoned infants do not increase the costs to the health care system per se, a lack of available alternative placements will affect the likelihood of these infants becoming boarder babies. In jurisdictions where positive drug tests are automatically investigated by child protective services, hospitals may experience delays in releasing infants until a child protective services investigation can be completed. Child protective services criteria that require evidence of parental inability to care for a child in addition to evidence of fetal drug exposure may increase the burden to hospital social work staff. Also, concerns expressed by discharge planners that child protective services would not be monitoring certain cases led to increased assignment of home health nurses or aides by the hospital to ensure the safety of the child.

These findings suggest the need for close collaboration between the health and child welfare service **delivery systems** in establishing policies, sharing test findings and seeking solutions for ensuring the safety and healthy development of boarder babies, abandoned infants, and other infants who are drug exposed, have tested positive for the HIV virus, and/or have medical conditions requiring further care.